No. 200500020

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

United States Government as represented by the Secretary of Agriculture

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEPPER

'Black Pearl'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-ninth day of September, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions* — Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
United States Government as represented by the Secretary of Agriculture

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME

3. VARIETY NAME
Black Pearl

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
USDA, ARS, Vegetable Laboratory, Floral and Nursery Plant Research Unit, Bldg. 010A, BARC-West, 10300 Baltimore Ave., Beltsville, MD 20705

5. TELEPHONE *(include area code)*
(301) 504-5583

6. FAX *(include area code)*
(301) 504-5555

FOR OFFICIAL USE ONLY

PVPO NUMBER
200500020

FILING DATE
Nov. 16, 2004

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
United States Government

8. IF INCORPORATED, GIVE STATE OF INCORPORATION

9. DATE OF INCORPORATION

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

John R. Stommel, Robert J. Griesbach
USDA, ARS, Vegetable Laboratory
Floral and Nursery Plant Research Unit
Bldg. 010A, BARC-West
10300 Baltimore Ave.
Beltsville, MD 20705

Richard Brenner
Office of Technology Transfer
5601 Sunnyside Ave.
Rm. 4-1159
Beltsville, MD 20705

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 3652.00
DATE 11/16/04

CERTIFICATION FEE:
$ 432 + 336
DATE 11/16/04 / 9/11/06

11. TELEPHONE *(Include area code)*
(301) 504-5583

12. FAX *(Include area code)*
(301) 504-5555

13. E-MAIL
stommelj@ba.ars.usda.gov

14. CROP KIND *(Common Name)*
Pepper

16. FAMILY NAME *(Botanical)*
Solanaceae

15. GENUS AND SPECIES NAME OF CROP
Capsicum annuum L.

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☑ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (*OPTIONAL*)
☐ YES ☑ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
(Follow instructions on reverse)

a. ☑ Exhibit A. Origin and Breeding History of the Variety
b. ☑ Exhibit B. Statement of Distinctness
c. ☑ Exhibit C. Objective Description of Variety
d. ☑ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☑ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☑ Filing and Examination Fee ($3,652), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 21 and 22 below)* ☑ NO *(If "no", go to item 23)*

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☑ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☑ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
R. Brenner			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Richard Brenner			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Assistant Administrator, OTT	11/16/2004		

(See reverse for instructions and information collection burden statement)

ST-470 (04-03) designed by the Plant Variety Protection Office using Word 2002.

INSTRUCTIONS

20050020

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $3,652 ($432 filing fee and $3,220 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvpindex.htm

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

APPLICATION FOR PLANT VARIETY PROTECTION

JMS 11/22/04

Exhibit A: Origin and Breeding History

~~Name of Owners: John R. Stommel and Robert J. Griesbach~~
Variety Name: Black Pearl

Black Pearl is a true-breeding F_8 selection derived from an initial cross between a purple foliage selection identified from a segregating population of the heirloom pepper cultivar Royal Black and an unnamed selection introduced by Dr. Thomas Barksdale (retired) to the Beltsville *Capsicum* genebank from a 1986 display garden at the U.S. National Arboretum. Royal Black was the female parent in the initial cross and was typified in our observation plots as a bushy plant with variegated green, white, and purple foliage. Royal Black produced solitary pendant tabasco type pods that matured from purple to red. The unnamed selection that served as the male parent in the initial cross with Royal Black was designated '86 Arboretum-1 by Dr. Thomas Barksdale upon introduction of this genotype to the USDA, ARS, Beltsville *Capsicum* genebank. '86 Arboretum-1 was a small compact plant with green foliage and clusters of small round red-pigmented fruit.

The pedigree is recorded as follows:
F_1: 94C27 (Royal Black selection) x 94C5-2 ('86 Arboretum-1)
F_2: 95C12
F_3: 96C11-17
F_4: 97C64-1GH
F_5: 98C93-9GH
F_6: G99C115-9
F_7: G01C65
F_8: G02C67

The F_1 generation was produced using conventional controlled crossing procedures, namely transfer of dehisced pollen from the male parent to emasculated flowers of the female parent. Subsequent generations were advanced via single plant selections and controlled self-pollination of said selections. Selection in early generations focused on identification of individuals with purple pigmented foliage that produced clusters of upright-oriented fruit. Successive selection for increased intensity of foliar anthocyanin pigmentation resulted in black foliage progeny. Concurrent selection was practiced for fruit size and shape and number of fruit per cluster. Selection also occurred for compact, yet vigorous plants that would perform well season-long under bedding plant conditions. Black Pearl combines anthocyanin pigmented foliage from 94C27 (our Royal Black selection) and upright-oriented clustered round fruit from '86 Arbotetum-1.

Black Pearl is an F_8 selection. During the past three generations of reproduction and during the seed increase period, Black Pearl was observed to be stable and uniform. No variants were observed.

Additions to PVP Application No. 200500020, Pepper, 'Black Pearl'

EXHIBIT A: Origin and Breeding History of the Variety

1994: The parental genotypes, 'Royal Black' and '86 Arboretum-1', were grown at the Beltsville Agricultural Research Center (BARC), Beltsville, MD in the summer of 1994. Superior progeny were identified in the field and seed was collected from those plants (94C27 [Royal Black selection]; 94C5-2 ['86 Arboretum-1' selection]). Progeny of 94C27 and 94C5-2 were used to produce seed of the F1 generation in the greenhouse during the fall and winter of 1994 at BARC.

1995: F_1 plants were evaluated in the field at BARC during the summer of 1995. Seed of the F_2 generation (95C12) was collected from those plants.

1996: F_2 plants were grown in the field at BARC during the summer of 1996. A single F_2 selection was made and seed was collected to advance to the F_3 generation (96C11-17).

1997: F_3 plants were evaluated in the field at BARC during the summer of 1997. A single F_3 selection was made and cuttings were taken to a greenhouse at BARC to produce seed (fall and winter 1997) and advance to the F_4 generation (97C64-1GH).

1998: F_4 plants were evaluated in the field at BARC during the summer of 1998. A single F_4 selection was made and cuttings were taken to a greenhouse at BARC to produce seed (fall and winter 1998) and advance to the F_5 generation (98C93-9GH).

1999: F_5 plants were evaluated in the field at BARC during the summer of 1999. A single F_5 selection was made and cuttings were shipped to Linda Vista, Cartago, Costa Rica to produce seed (fall and winter 1999) and advance to the F_6 generation (G99C115-9).

2001: F_6 plants were evaluated in the field at BARC during the summer of 2001. Cuttings from multiple F_6 selections were bulked and shipped to Linda Vista to produce seed (fall and winter 2001) and advance to the F_7generation (G0lC65).

2002: F_7 plants were evaluated in field plots at BARC (heat zone 7), Apollo Beach, Florida (heat zone l0), and Elburn, Illinois (heat zone 5). Cuttings from multiple F_7 selections were bulked and taken to a greenhouse at BARC to produce seed (fall and winter 2002) and advance to the F_8 generation (G02C67).

2004: The F_8 selection was designated 'Black Pearl' and trialed nationally in the All America Selections (AAS) trial grounds by a network of independent judges who determined garden performance. Based on trial performance, 'Black Pearl' was designated a 2006 AAS award winner.

APPLICATION FOR PLANT VARIETY PROTECTION

JMS 11/22/04

Exhibit B: Statement of Distinctness

~~Name of Owners: John R. Stommel and Robert J. Griesbach~~
Variety Name: Black Pearl

(1a) The ornamental pepper variety Ember is the most similar previously existing variety for comparison with Black Pearl. Ember was developed by Syngenta and is one of three varieties in their "Explosive" series.

(1b) Numerous pepper varieties have been developed for ornamental use. The following list of 50 varieties is representative of the diversity available in named cultivars. Aurora, Black Hungarian, Blast, Calypso, Candlelight, Chilly Chili, Czechoslovakian, Ember, Favorit, Festival, Fiesta, Fips, Fish, Fireworks, Golden Treasure, Hearts, Holiday Cheer, Holiday Cheer, Ignite, Inferno Mixed, Jackpot, Jigsaw, Karneval, Little Elf, Marbles, Masquerade, Medusa, Midnight Special, Nosegay, NuMex Eclipse, NuMex Mirasol, NuMex Pinata, NuMex Sunburst, NuMex Sunflare, NuMex Sunglo, NuMex Sunrise, NuMex Sunset, Pinocchio, Prairie Fire, Pretty in Purple, Red Missile, Riot, Salsa, Super Chili Hybrid, Sweet Pickle, Tangerine Dream, Tequila Sunrise, Treasure Red.

(2) Black Pearl's unique combination of foliage color and fruit size, shape, and color distinguish it from Ember and all previously developed ornamental pepper varieties.

(3) Statements of distinctness: (all are applicable to 2002 and 2004 trials)

Black Pearl is most similar to Ember; however, Black Pearl's plant habit is erect, whereas Ember's plant habit is semi-erect.

Black Pearl is most similar to Ember; however, Black Pearl has black abaxial leaf surface color (RHS 202A), whereas Ember has dark green abaxial leaf surface color (RHS 147B).

Black Pearl is most similar to Ember; however, Black Pearl has fruit typical of the small round group, whereas Ember has fruit typical of the Tabasco group.

Black Pearl is most similar to Ember; however, Black Pearl has black immature fruit (RHS 202A), whereas Ember has purple immature fruit (RHS 79A).

Black Pearl is most similar to Ember; however, Black Pearl has darker red pigmented mature fruit (RHS 46A) in comparison to mature fruit of Ember (RHS 34A).

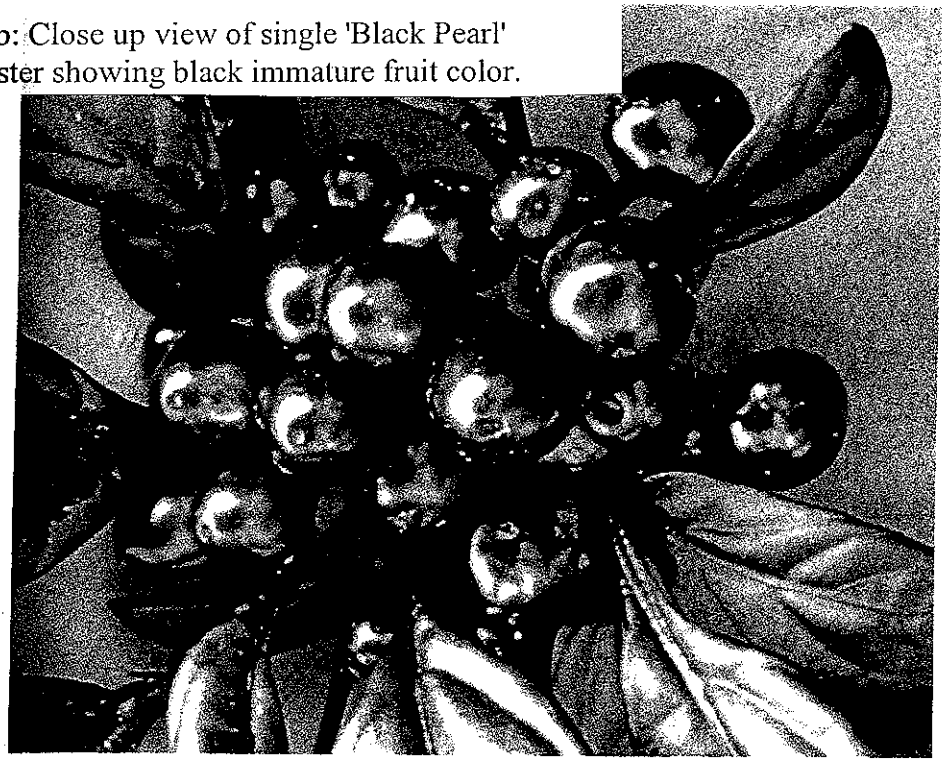
Black Pearl is most similar to Ember; however, Black Pearl has a blunt fruit apex, whereas Ember has a pointed apex.

Black Pearl is most similar to Ember; however, Black Pearl has globe shaped fruit, whereas Ember has conical fruit.

(4) Photographs of Black Pearl that illustrate distinguishing characters are included in this application.

Figure la: Whole plant view of 'Black Pearl' showing black foliage, multiple fruit clusters and erect plant habit.

Figure lb: Close up view of single 'Black Pearl' fruit cluster showing black immature fruit color.



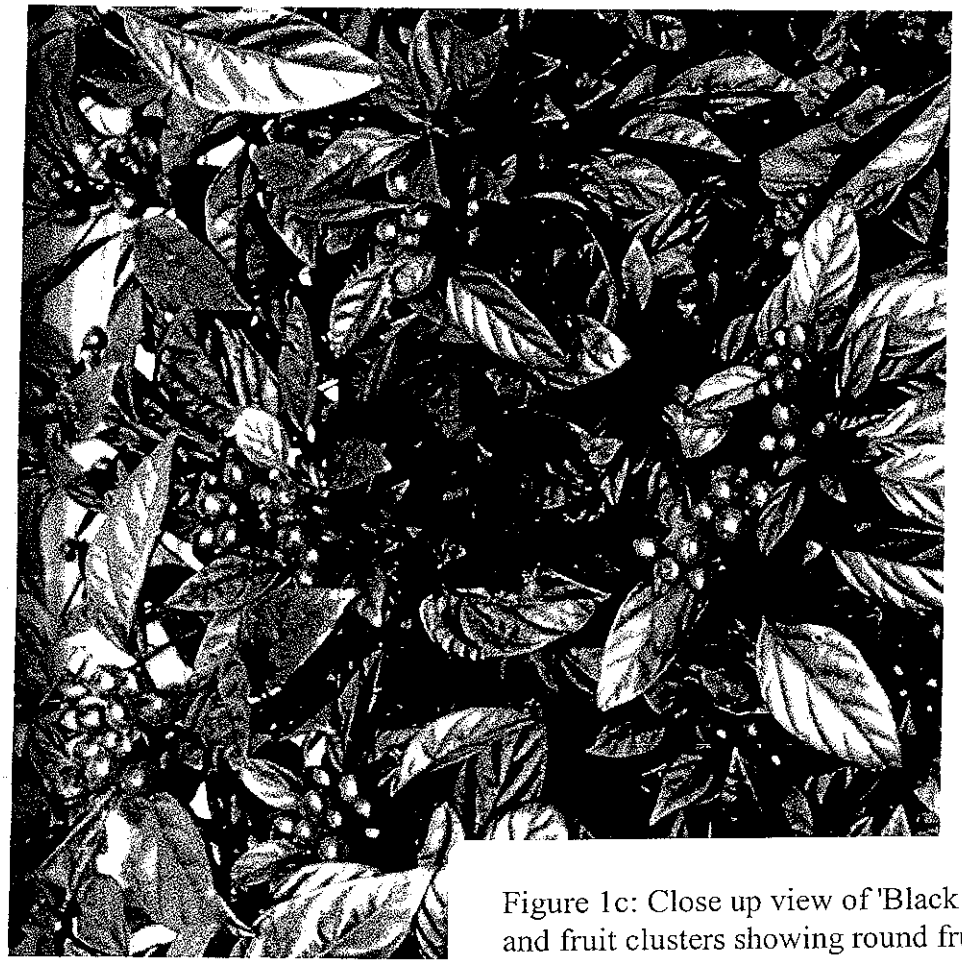


Figure 1c: Close up view of 'Black Pearl' foliage and fruit clusters showing round fruit shape and red ripe fruit color. Distinguishing leaf size attributes are quantified in Exhibit C.

20050002

Ember Pepper

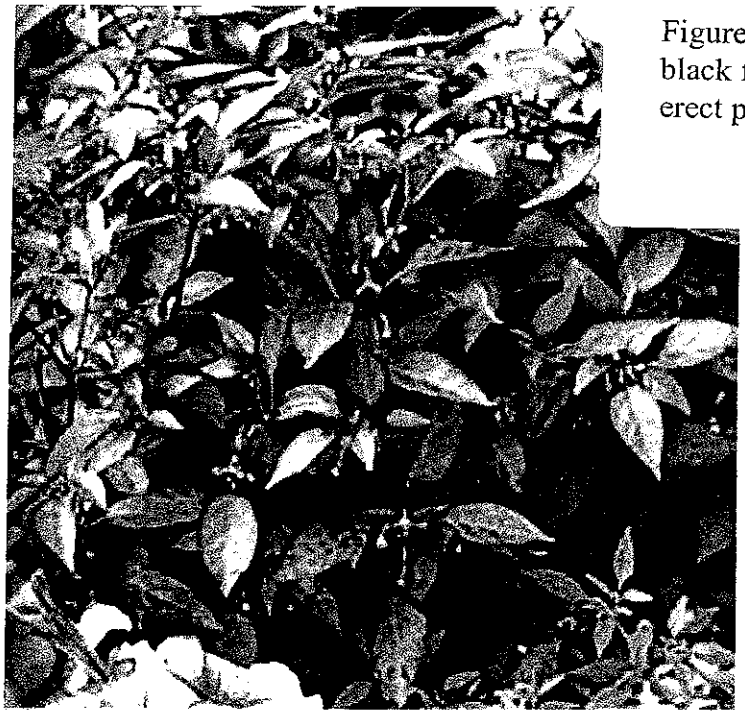


Figure 2a: Whole plant view of 'Ember' showing black foliage, multiple flower clusters and semi-erect plant habit.

Figure 2a

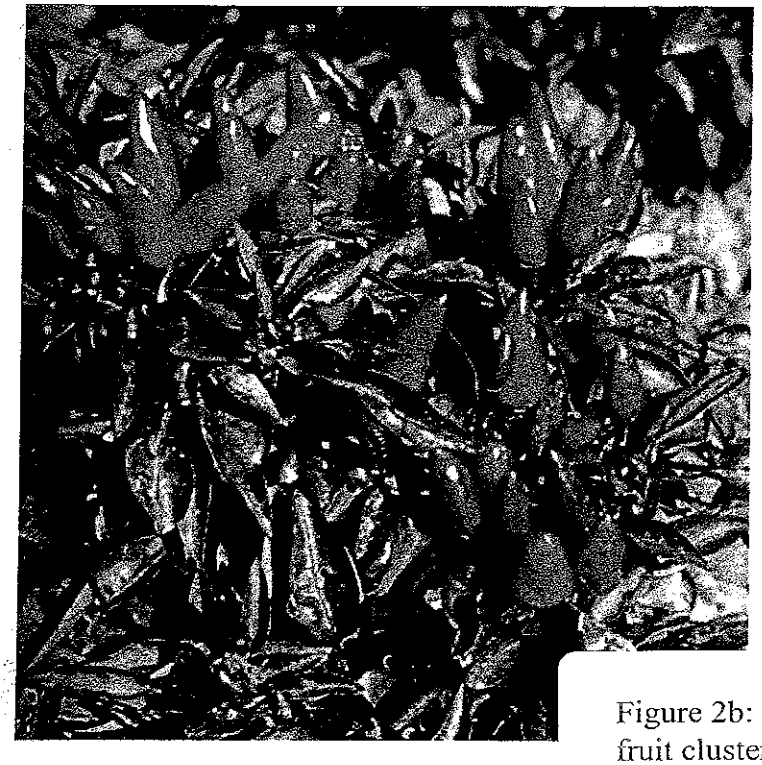


Figure 2b

Figure 2b: Close up view of 'Ember' foliage and fruit clusters showing Tabasco fruit shape, purple immature fruit color and red ripe fruit color. Distinguishing leaf size attributes are quantified in Exhibit C.

FORM SD-470-56
(1-07-2003)

United States Department of Agriculture, Agricultural Marketing Service
Plant Variety Protection Office
National Agricultural Library Building, Room 400
Beltsville, MD 20705

EXHIBIT C
(Pepper)

OBJECTIVE DESCRIPTION OF VARIETY
PEPPER (*Capsicum* spp.)

Name of Applicant(s)	Experimental or Temporary Designation	Variety Name
~~John R. Stommel and Robert J. Griesbach~~ United States Government as represented by the Secretary of Agriculture		Black Pearl

Address (Street & No., or R.F.D. No., City, State, Zip Code and Country)
USDA, ARS, Vegetable Laboratory, Floral and Nursery Plant Research Unit, Bldg. 010A, BARC-West, 10300 Baltimore Ave., Beltsville, MD 20705

FOR OFFICIAL USE

PVPO Number
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In the left column, place the appropriate number that describes the varietal characters typical of this variety in the spaces below. In the right column, use the same procedure to describe the most similar comparison variety. Right justify whole numbers by adding leading zeroes if necessary. Completeness should be striven for to establish an adequate variety description.

COMPARISON VARIETIES : Use the most similar variety (in background and maturity) to make comparisons, based on side-by-side grow-out trial data. Suggested comparison varieties include :

Anaheim Chili	Cayenne Long Red	Cubanelle	Floral Gem	Habanero
Jalapeno	Mexican Chili	Pimiento Perfection	Serrano	Sweet Banana
Sweet Cherry	Tabasco	Yolo Wonder L	Other (specify) Ember	

1. SPECIES :

1	1 = C. annuum 2 = C. frutescens 3 = C. baccatum 4 = C. chinense 5 = Other (specify) _____	1 Species (Specify if choice is 5 _____)
	Location of Test Area Beltsville, MD	Comparison Variety Name Ember
		Comparison Variety Source Syngenta

2. MATURITY (In Region of Best Adaptability) :

60	Days from transplanting until mature purple stage	60 Days from transplanting until mature purple stage
80	Days from transplanting until mature red or yellow stage	75 Days from transplanting until mature red or yellow stage
n/a	Days from direct seeding until mature green stage	n/a Days from direct seeding until mature green stage
n/a	Days from direct seeding until mature red or yellow stage	n/a Days from direct seeding until mature red or yellow stage

3. PLANT :

1	Plant Habit : 1=Compact 2=Semi-spreading 3=Spreading 4=Other _____	1 Plant Habit (specify if choice is 4 _____)
1	Plant Attitude : 1=Erect 2=Semi-erect 3=Prostrate 4=Other _____	2 Plant Attitude (specify if choice is 4 _____)
310	cm Plant Height	220 cm Plant Height
450	cm Plant Width	360 cm Plant Width
180	cm Length of Stem from Cotyledons to First Flower	130 cm Length of Stem Cotyledons to First Flower
200	mm Length of Third Internode (from soil surface)	180 mm Length of Third Internode (from soil surface)
3	Basal Branches: 1=None 2=Few (2-3) 3=Many (more than 3)	3 Basal Branches
2	Branch Flexibility: 1=Willowy (Cayenne Long Red) 2=Rigid (Yolo Wonder L)	2 Branch Flexibility
3	Stem Strength (Breakage Resistance): 1=Weak 2=Intermediate 3=Strong	3 Stem Strength (Breakage Resistance)

4. LEAVES :

350	mm Leaf Width
820	mm Leaf Length
300	mm Petiole
1	Mature Leaf Shape: 1=Lanceolate 2=Elliptic
5	Leaf Color: 1=Light Green 2=Medium Green 3=Dark Green 4= Purple 5=Other (specify) Black
	Color Chart Name Royal Horticultural Society (RHS) Code 202A (adaxial; 202A (abaxial).
1	Leaf and Stem Pubescence: 1=Absent (Yolo Wonder L) 2=Light 3=Moderate (Serrano) 4=Heavy (Chili Piquin)
1	Margin Undulation: 1=Absent 2=V. Weak 3=Weak 4=Medium 5=Strong 6=V. Strong
1	Blistering: 1=Absent 2=Very Weak 3=Weak 4=Medium 5=Strong 6=Very Strong

220 mm Leaf Width
460 mm Leaf Length
350 mm Petiole Length
1 Mature Leaf Shape
5 Leaf Color (Specify if choice is 5 black)
Code 202A (adaxial); 147B (abaxial)
1 Leaf and Stem Pubescence
1 Margin Undulation
1 Blistering

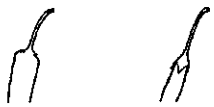
10

5. FLOWERS :

Application Variety Data	Comparison Variety Data
6 Number of Flowers per Leaf Axil	4 Number of Flowers per Leaf Axil
5 Number of Calyx Lobes	5 Number of Calyx Lobes
5 Number of Petals	5 Number of Petals
22.0 mm Flower Diameter	14.0 mm Flower Diameter
2 Corolla Color: 1=White 2=Purple 3=Other (Specify) _____	2 Corolla Color (Specify if choice is 3 _____)
2 Corolla Throat Markings: 1=Yellow (Tan) 2=Purple 3=Other (Specify) _____	2 Corolla Throat Markings (Specify if choice is 3 _____)
2 Anther Color: 1=Yellow 2=Purple 3=Other (Specify) _____	2 Anther Color (Specify if choice is 3 _____)
3 Style Length: 1=Less Than Stamen 2=Same as Stamen 3=Exceeds Stamen	3 Style Length
1 Self-Incompatibility: 1=Absent 2=Present	1 Self Incompatibility

6. FRUIT :

Application Variety Data	Comparison Variety Data
14 Group: 1=Bell (Yolo Wonder L) 2=Pimiento (Pimiento Perfection) 3=Ancho (Mexican Chili) 4=Anaheim Chili (Sandia) 5=Cayenne (Cayenne Long Red) 6=Cuban (Cubanelle) 7=Jalapeno (Jalapeno) 8=Small Hot (Serrano) 9=Cherry (Sweet Cherry) 10=Short Wax (Floral Gem) 11=Long Wax (Sweet Banana) 12=Tabasco (Tabasco) 13=Habanero (Scotch Bonnet) 14=Other small round	12 Fruit Group (Specify if choice is 14 _____)
8 Immature Fruit Color: 1=Light Green (Cubanelle) 2=Medium Green (Long Thin Cayenne) 3=Dark Green (Yolo Wonder L) 4=Very Dark Green (Ancho Chili) 5=Yellow (Yellow Belle) 6=Purple (Violetta) 7=Ivory (Twiggy) 8=Other black	6 Immature Fruit Color (Specify if choice is 8 _____)
Color Chart Name Roy. Hort. Soc. (RHS) Code 202A	Code 79A
1 Mature Fruit Color: 1=Red (Yolo Wonder L) 2=Orange 3=Orange-Yellow (Golden Calwonder) 4=Brown (Mulatto) 5=Ivory 6=Green (Permagreen) 7=Salmon 8=Lemon Yellow 9=Other _____	1 Mature Fruit Color (Specify if choice is 9 _____)
Color Chart Name RHS Code 46A	Code 34A
2 Pungency: 1=Sweet (Yolo Wonder L) 2=Hot (Jalapeno)	2 Pungency
n/a ____ mg Capsaicin per gram dry fruit	n/a ____ mg Capsaicin per gram dry fruit
n/a ____ Scoville Units (dry fruit)	n/a ____ Scoville Units (dry fruit)
2 Flavor: 1=Mild Pepper Flavor 2=Moderate Pepper Flavor 3=Strong Pepper Flavor 4=Other _____	2 Flavor (Specify if choice is 4 _____)
3 Fruit Glossiness: 1=Dull 2=Moderate 3=Shiny	3 Fruit Glossiness
1 Surface Smoothness: 1=Smooth (Yolo Wonder L) 2=Rough (Long Thin Cayenne)	1 Surface Smoothness
1 Fruit Position: 1=Upright (Santaka) 2=Horizontal 3=Pendent (Jalapeno)	1 Fruit Position
2 Calyx Shape: 1=Cup-shaped (Enveloping Fruit Base) 2=Saucer-shaped (Flat, Non-Enveloping)	2 Calyx Shape



Saucer-shape Cupped

Application Variety Data	Comparison Variety Data
9.0 mm Calyx Diameter	7.0 mm Calyx Diameter
16.0 mm Fruit Length	30.0 mm Fruit Length
9.0 mm Fruit Diameter at Calyx Attachment	8.0 mm Fruit Diameter at Calyx Attachment
16.0 mm Fruit Diameter at Mid-point	8.0 mm Fruit Diameter at Mid-point
1.5 mm Flesh Thickness at Mid-point	1.5 mm Flesh Thickness at Mid-point
270.0 Average Number of Fruits per Plant	200.0 Average Number of Fruits per Plant
25.0 % Large Fruits (Weight Range 1.9 g to 1.7 g)	10.0 % Large Fruits (Weight Range 1.1 g to 1.2 g)
65.0 % Medium Fruits (Weight Range 1.6 g to 1.2 g)	90.0 % Medium Fruits (Weight Range 1.0 g to 0.7 g)
10.0 % Small Fruits (Weight Range 1.1 g to 0.7 g)	0.0 % Small Fruits (Weight Range _____ to _____)
1.4 gm Average Fruit Weight	0.9 gm Average Fruit Weight

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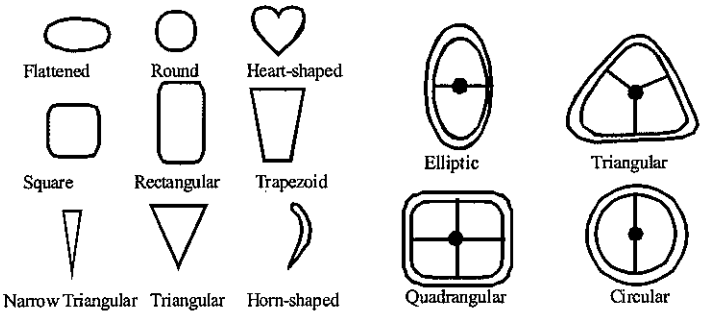
6. FRUIT (continued) :

Cupped Rounded Pointed Blunt

2	Fruit Base Shape:	1=Cupped (Yolo Wonder L) 2=Rounded (Jalapeno)	2 Fruit Base Shape
2	Fruit Apex Shape:	1=Pointed (Long Thin Cayenne) 2=Blunt (Yolo Wonder L)	1 Fruit Apex Shape
6	Fruit Shape:	1=Bell (Yolo Wonder L) 2=Conical (Pimiento) 3=Elongate (Long Thin Cayenne) 4=Oblong (Jalapeno) 5=Oblate (Sunnybrook) 6=Globe (Red Cherry) 7=Other _____	2 Fruit Shape (Specify if choice is 7 _____)
2	Fruit Shape (Longitudinal Section, see attached pictures):	1=Flattened 2=Round 3=Heart-shaped 4=Square 5=Rectangular 6=Trapezoid 7=Narrow Triangular 8=Triangular 9=Horn-shaped	7 Fruit Shape (Longitudinal Section)



4	Fruit Shape (Cross Section, at Level of Placenta):	1=Elliptic 2=Triangular 3=Quadrangular 4=Circular	4 Fruit Shape (Cross Section)
2	Fruit Set:	1=Scattered 2=Concentrated	2 Fruit Set
2	Interloculary Grooves:	1=Absent 2=Very Shallow 3=Shallow 4=Medium 5=Deep 6=Very Deep	1 Interloculary Grooves
0.0	% Fruits with one locule		0.0 % Fruits with one Locule
50.0	% Fruits with two locules		100.0 % Fruits with two Locules
50.0	% Fruits with three locules		0.0 % Fruits with three locules
0.0	% Fruits with four locules		0.0 % Fruits with four locules
0.0	% Fruits with five or more locules		0.0 % Fruits with five or more locules
2.50	Average Number of Locules		2.00 Average Number of Locules
15.0	mm Pedicel Length		18.0 mm Pedicel Length
2.0	mm Pedicel Thickness		1.0 mm Pedicel Thickness
1	Pedicel Shape: 1=Straight 2=Curved		1 Pedicel Shape
1	Pedicel Cavity: 1=Absent 2=Present		1 Pedicel Cavity
n/a	mm Depth of Pedicel Cavity		n/a mm Depth of Pedicel Cavity

7. SEED :

10.0	mm Seed Cavity Length	20.0 mm Seed Cavity Length
3.0	mm Seed Cavity Diameter	5.0 mm Seed Cavity Diameter
1.5	mm Placenta Length	22.0 mm Placenta Length
80	Number of Seeds per Fruit	31 Number of Seeds per Fruit
4.0	gm per 1000 Seeds	2.1 gm per 1000 Seeds
1	Seed Color: 1=Yellow 2=Purple	1 Seed Color

8. ANTHOCYANIN (1 = Absent; 2 = Weak; 3 = Moderate; 4 = Strong) :

Application Variety Data	Comparison Variety Data
2 Seedling Hypocotyl	2 Hypocotyl
4 Stem	4 Stem
4 Node	4 Node
4 Leaf	4 Leaf
4 Pedicel	4 Pedicel
4 Calyx	4 Calyx
4 Fruit	4 Fruit

9. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; indicate Race or Strain, when known) :

A. Viruses:	
____ Cucumber Mosaic Virus	____ Cucumber Mosaic Virus
____ Curly Top Virus	____ Curly Top Virus
____ Pepper Mottle Virus	____ Pepper Mottle Virus
____ Potato Y Virus	____ Potato Y Virus
____ Tobacco Etch Virus	____ Tobacco Etch Virus
____ Tobacco Mosaic Virus	____ Tobacco Mosaic Virus
B. Other Diseases and Insects:	
____ Anthracnose (*Gloeosporium piperatum*)	____ Anthracnose
____ Bacterial Spot (*Xanthomonas vesicatoria*)	____ Bacterial Spot
____ Cercospora Leaf Spot (*Cercospora capsici*)	____ Cercospora Leaf Spot
____ Nematode (*Meloidogyne incognita acrita*)	____ Nematode
____ Phytophthora Root Rot (*Phytophthora capsici*)	____ Phytophthora Root Rot
____ Ripe Rot (*Vermicularia capsici*)	____ Ripe Rot
____ Southern Blight (*Sclerotium rolfsii*)	____ Southern Blight
____ Verticillium Wilt (*Verticillium dahliae*)	____ Verticillium Wilt
____ Other (Specify) _____	____ Other (Specify) _____

10. COMMENTS (eg. maturity comparisons with other varieties, source of comparison variety seed, etc. Continue in Exhibit D):

'Black Pearl' is a pepper cultivar intended for ornamental applications.

EXHIBIT C: Objective Description of the Variety

'Black Pearl' was developed and released for ornamental applications. Similarly, 'Ember' is marketed for ornamental use. Since fruit of the respective cultivars is not intended for consumption, Scoville units were not measured. Fruit of both cultivars are pungent. Based upon subjective taste tests conducted at Beltsville, MD, pungency of 'Black Pearl' and 'Ember' fruit was comparable to fruit produced by scotch bonnet and habanero class peppers. Scoville units for these classes of pepper typically range from 100,000 - 350,000 units (for example:

http://spectre.nmsu.edu/dept/docs/CHILE/Chile%20Pungency.pdf
http://pubs.acs.org/hotartcl/tcaw/00/may/dong.html
http://www.reference.com/browse/wiki/Scoville_scale
http://ag.arizona.edu/yavapai/anr/hort/byg/archive/chilespart2.html

Disease and insect problems were not evident in comparative trials of 'Black Pearl' and 'Ember' conducted in 2002 at Beltsville, MD, Apollo Beach, FL, and Elburn, IL. Field observations made over the course of the breeding program for 'Black Pearl' support these observations. National trials of 'Black Pearl' conducted in 2004 by the All America Selections grower network, similarly made no notable observations on disease or insect problems. Controlled inoculations and testing for disease or insect problems were not conducted.

APPLICATION FOR PLANT VARIETY PROTECTION

Exhibit D: Additional Descriptive Information

~~Name of Owners: John R. Stommel and Robert J. Griesbach~~
Variety Name: Black Pearl

Table 1. Multi-year data for Black Pearl (± standard error) grown at the Beltsville Agricultural Research Center, Beltsville, Maryland. 2002 plots included 12 plants/plot and in 2004, 24 plants/plot. For both 2002 and 2004, plugs were transplanted to field plots May 15-24th. With the exception of immature fruit, plants assumed full size for all attributes by mid- to late August in respective years. Immature fruit continue to develop size and red pigmentation through late September.

Character	2002	2004
Plant height (cm)	26.4 ± 1.2	31.4 ± 0.8
Plant width (cm)	31.9 ± 1.7	45.2 ± 0.6
Fruit weight (g)	-	1.4 ± 0.1
Fruit diameter (cm)	1.4 ± 0.05	1.6 ± 0.1
Locules/fruit	2.5 ± 0.2	2.6 ± 0.2
Pericarp thickness (mm)	2.2 ± 0.2	1.6 ± 0.2
Fruit/cluster	6.5 ± 0.4	5.8 ± 0.4

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HortScience 40(5):1571–1573. 2005.

Capsicum annuum L. 'Black Pearl'

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Additional index words. pepper, ornamentals, breeding

Considerable diversity exists in *Capsicum* L. germplasm for fruit and leaf shape, size and color, as well as plant habit. This morphological diversity, together with diverse ripe fruit color and varying hues of green to purple and variegated foliar pigmentation, affords myriad opportunities to develop unique cultivars for ornamental applications. When introduced to Europe in the 15th century, peppers were held in higher esteem as an ornamental plant than as a food source. Ornamental peppers as a potted or bedding plant and a florist crop are still popular today in Europe and are gaining in popularity in the United States (Armitage and Hamilton, 1987; Bosland, 1999). Ornamental peppers were long known as Christmas peppers in the floriculture industry and were limited to pot plants (Hammer, 1980). Christmas peppers bearing brightly colored fruit were the most popular Christmas gift plant until about the 1960s, at which time the poinsettia industry began to promote and introduce new, improved cultivars that have made poinsettia the number one Christmas gift plant (Stommel and Bosland, 2005).

Attributes of ornamental pepper include easy seed propagation, a relatively short cropping time, heat and drought tolerance, and excellent keeping quality (Stommel and Bosland, 2005). These attributes, together with the morphological diversity available in *Capsicum*, also make ornamental peppers ideal for use as bedding plants because they offer vibrant fruit and foliage colors through the summer and fall seasons. Ornamental peppers have become a profitable crop for greenhouse pot plant and transplant production and an innovative way for small farmers to produce a high-value alternative crop.

A growing demand exists for dark purple to black pigmented landscape and garden plants (Armitage, 2002). Included among these are black pansies (*Viola trifolia* L.), cannas (*Canna* sp. L.), coleus (*Coleus* sp. Lour.), alum-root (*Heuchera* L.), pearl millet (*Pennisetum glaucum* Rich.), sweet potato vine (*Ipomoea batatas* Lam.), taro (*Colocasia* sp. Schott), and others. Many of these species have limited seasonal interest and lack wide adaptability. Ornamental peppers produce colorful fruit in addition to variable foliage color and provide an attractive display into the fall season. They rival chrysanthemum (*Dendramthema grandiflora* Tzvelev.) for vivid fall color as a border plant. In mixed plantings, the dark foliage is a welcome accompaniment to species bearing red, orange, or white to pale-colored flowers. Purple to black pigmentation is attributed to anthocyanins. In pepper fruit, anthocyanins accumulate in variable concentrations and in varying degrees of transience during maturation (Deshpande, 1933; Peterson, 1959). When present in other plant organs, however, purple pigmentation is normally stable through plant development.

The U.S. Department of Agriculture--Agricultural Research Service announces the release of a new pepper (*Capsicum annuum* L.) cultivar named 'Black Pearl'. 'Black Pearl' is intended for ornamental applications and affords growers a new crop to add to their bedding and landscape plant assortment. The vibrant fruit and foliage colors of this new cultivar add interest to the summer and fall garden.

Origin

'Black Pearl' is a true-breeding F_8 selection derived from an initial cross between a segregant identified in a population of the open-pollinated heirloom pepper cultivar Royal Black and a selection designated '86 Arboretum-1' that was introduced by Dr. Thomas Barksdale to the Beltsville *Capsicum* genebank from a 1986 display garden at the U.S. National Arboretum. 'Royal Black' was typified in our observation plots as a bushy plant with variegated green, white, and purple foliage. A unique segregant denoted 94C27 with non-variegated purple foliage was identified in the 'Royal Black' population and used as the female parent in the cross with '86 Arboretum-1'. Line 94C27 produced solitary pendant Tabasco type pods that matured from purple to red. '86 Arboretum-1' was a small compact plant with green foliage and clusters of small round red-pigmented fruit.

'Black Pearl' combines anthocyanin-pigmented foliage from 94C27 and upright-oriented clustered small round fruit from '86 Arbotetum-1'. Selection in early generations focused on identification of individuals with purple-pigmented foliage that produced clusters of upright-oriented fruit. Successive selection for increased intensity of foliar anthocyanin pigmentation resulted in black foliage progeny. A concurrent selection program was begun for fruit size, shape and number per cluster. Selection was also made for upright compact, yet vigorous plants that would perform well season-long under bedding plant conditions (Fig. 1). Uniformity of the 'Black Pearl' phenotype was stabilized under controlled pollination conditions prior to release at the eighth generation.

'Black Pearl' was trialed under field conditions in Elburn, Illinois (heat zone 5) [American Horticultural Society (AHS), 1997], Beltsville, Md. (heat zone 7), and Apollo Beach, Fla. (heat zone 10). In these trials, growers noted the plants striking black foliage that contrasted well with the brightly colored upright clustered fruit. 'Black Pearl' was subsequently trialed nationally in the All-America Selections (AAS) trial grounds by a network of independent judges who determined garden performance. 'Black Pearl' was designated a 2006 AAS award winner after completion of national trials in 2004. 'Black Pearl' is a release made available from a cooperative research and development agreement with Pan American Seed Company (Elburn, Illinois) to develop new pepper germplasm with novel fruit, foliage, and plant growth habit.

Description

'Black Pearl' is a diploid ($2n = 2x = 24$) herbaceous annual. 'Black Pearl' has proven uniform for these morphological characteristics in multiple trials during latter stages of cultivar development. AAS national trials conducted over multiple locations in 2004 supported these observations. Data reported here were collected from 2004 trials in Beltsville, Maryland and describes relevant ornamental attributes. Roots are fibrous. Leaves and stems are glabrous and glossy. Leaves are simple, entire, lanceolate, apiculate at the tip, and symmetrical. At maturity, leaves average 8.2 cm in length (range: 7.4–11.0 cm) and 3.5 cm in width (range: 2.9–4.5 cm). Adaxial and abaxial foliage surface is black (202A) [Royal Horticultural Society (RHS), 1966]. Plant habit is upright and growth is fasiculate with branches ending in a fruit cluster. Plants average 45 cm in diameter (range: 44–47 cm) and 31 cm in height (range: 29–34 cm) (80 days post-transplanting).

Flowers are self-compatible, hermaphroditic, pentamerous and hypogynous. Flowers average 2.2 cm in diameter (range: 2.0–2.4 cm) and have purple (77A) petals. Flower styles, filaments and anthers exhibit slightly darker purple (79A) pigmentation in comparison to petals. Fruit are produced in upright clusters of six to eight per cluster. Immature fruit are black (202A) and mature to red (46A). Fruit are round and average 1.6 cm in diameter (range: 1.3–1.7 cm).

'Black Pearl' produces a flush of full-size black fruit in about 60 d from transplanting and a flush of mature red fruit in approximately 80 days after transplanting under good growing conditions (see culture section). Additional fruit will continue to develop and ripen over a subsequent four- to six-week period. Fruit are extremely pungent. 'Black Pearl' is intended for ornamental applications and so Scoville pungency units were not determined. Although edible, ornamental peppers are typically very pungent and are grown for their unusual pod

Received for publication 16 Dec. 2004. Accepted for publication 25 Jan. 2005.

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shapes or for their dense foliage and colorful fruit (Bosland and Votava, 1999).

Culture

'Black Pearl' has been trialed extensively for use as a bedding plant where its compact growth habit, black foliage, and brightly colored erect fruit provide an attractive ornamental display. Limited evaluations suggest that this cultivar is equally well suited for pot culture under high light conditions. Tests in controlled environments indicate that foliar pigmentation is reduced under short day, low light conditions (data not shown). 'Black Pearl' does not require pinching or application of growth regulators to maintain its growth habit. Similar to peppers grown for culinary use, 'Black Pearl' is a warm season crop requiring minimum daytime temperatures of 18 to 21 °C. The base growing-degree day temperature for pepper is 18 °C. Optimal growth is achieved

Fig. 1. 'Black Pearl' pepper.

at higher temperatures up to 32 °C. Plants grow poorly in the 5 to 15 °C range and are frost susceptible (Bosland, 1999). Plants are best established from transplants produced in a warm greenhouse. Typical of most peppers, seedling emergence occurs in 10 to 12 d at 21 to 24 °C and is markedly delayed at reduced temperatures (Love, 1987). Plants suitable for transplanting (15 to 20 cm tall) are ready in 6 weeks from seeding. Plants prefer a well-drained loam or sandy loam soil with some organic matter and a pH range of 7.0 to 8.5. Satisfactory drainage reduces the incidence of infection by soilborne diseases such as phytophthora root rot.

Availability

Seed of 'Black Pearl' is available from Pan American Seed Co., 622 Town Road, West Chicago, IL 60185. Plant Variety Protection for 'Black Pearl' has been requested. A voucher seed sample of this release has been submitted to the USDA, AMS, Plant Variety Protection Office and will be deposited in the National Plant Germplasm System. It is requested that appropriate recognition be made if this germplasm contributes to the development of a new breeding line or cultivar.

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
U.S. Govt. as represented by the Secretary of Agriculture		Black Pearl
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(Include area code)*	**6. FAX** *(Include area code)*
USDA, ARS, Vegetable Laboratory, Floral and Nursery Plant Research Unit, Bldg. 010A, BARC-West, 10300 Baltimore Ave., Beltsville, MD 20705	(301) 504-5583	(301) 504-5555
	7. PVPO NUMBER 200500020	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ **YES** ☐ **NO**

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ **YES** ☐ **NO**

10. Is the applicant the original owner? ☑ **YES** ☐ **NO** **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ **YES** ☐ **NO** **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ **YES** ☐ **NO** **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

Black Pearl was bred by John R. Stommel and Robert J. Griesbach, employees of USDA-ARS. Rights have been assigned to the United States Government as represented by the Secretary of Agriculture.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.